

REMARKS

This response is responsive to a non-final Office Action mailed by the Office on February 2, 2004.

Claim 16 is objected to under 37 C.F.R. §1.75(a). Claims 1-34 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-34 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicant respectfully traverses the Examiner's rejections.

Applicant has amended claims 1 and 16. Claim 1 has been amended to correct an obvious grammatical error. Claim 16 has been amended in accordance with the Examiner's request. These amendments are discussed in further detail below, and support for these amendments may be found in the specification and the original claims. No new matter has been added by these amendments. Applicant submits that the pending claims are allowable. Reconsideration of the claims is respectfully requested in view of the foregoing amendments and the following remarks.

I. 37 C.F.R. § 1.75

Claim 16 is objected to under 37 C.F.R. §1.75(a) because the term "the product of the volume of all items on the list of items to be packed and one plus one minus a maximum fill constraint divided by the minimum number of cases required for packing the items in the list of items to be packed" is difficult to parse. Applicant has amended the claim in accordance with the Examiner's suggested amendment. Office action, page 3. This amendment is provided for clarity only, and not to change the scope of the claim. Applicant respectfully requests that the Examiner withdraw the objection to claim 16.

II. 35 U.S.C. § 112, First Paragraph

Claims 1-34 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, independent claim 1 is rejected for being inoperable in implementing an embodiment posed by the Examiner.

Respectfully, the presence of inoperative embodiments within a claim not does render a claim non-enabled. MPEP § 2164.08. The standard is whether a person of skill in the art can determine which embodiments would be operative or inoperative while expending no more effort than is normally required in the art. MPEP § 2164.08 (quoting *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 750 F.2d 1569, 1577, 224 USPQ 409, 414 (Fed. Cir. 1984)). The method does not have to work with every conceivable scenario to be patentable. No more effort is required to determine the operability or inoperability of the embodiment posed than is normally required in the art. Thus, the claim is enabled. Claims 2-34 depend from claim 1 and are enabled as well. Applicant respectfully requests that the Examiner withdraw the rejection to claims 1-34.

III. 35 U.S.C. § 112, Second Paragraph

Claims 1-34 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 1 stands rejected for allegedly failing “to describe what type of variable is being optimized by the claimed method.” Office Action, page 6. The term “optimized” is understood in the art, and is described in the specification, as filling the bounded region to the extent that is practicable. Specification, page 9, lines 16-21. Thus, claim 1 is not indefinite.

Claims 1-16 and 27-30 stand rejected as allegedly being incomplete for omitting essential steps. The alleged omitted steps set out in the Office Action are “the steps that comprise step ‘(e)’ of ‘determining the configuration of placement in the case to be packed of items in the list of items to be packed.’” Office Action, page 6. “In reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider

the claim as a whole.” MPEP § 2173.01. Once a case is selected in step (c) of claim 1, determining the configuration of placement of items in the case may be performed according to various methods that are known to those of skill in the art, and according to methods described in the specification and claimed in claims 17, 27, and 31. Thus claims 1-16 and 27-30 are not incomplete for omitting essential steps.

Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-16 and 27-30. Claims 17-26 and 31-34 depend from claim 1 and are definite and complete for at least the reasons stated herein. Accordingly, Applicant respectfully requests that the rejection of claims 17-26 and 31-34 be withdrawn as well.

IV. 35 U.S.C. § 101

Claims 1-34 stand rejected for reciting a process that is not directed to the technological arts. The Supreme Court has held that the language of 35 U.S.C. § 101 includes "anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980). Further, the method claimed in this application produces a useful, concrete, and tangible result, including “placement of items in a bounded region” as recited in claim 1. Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-34.

V. 35 U.S.C. § 102(b)

Claims 1-4 and 16 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Chen, *et al.*, “An Analytical Model for the Container Loading Problem,” *European Journal of Operations Research*, Vol. 80, No. 1, pp. 68-76 (January 1995) (hereinafter “Chen”).

Regarding claims 1 and 16, the Examiner poses a hypothetical embodiment in which, according to the Examiner, “step ‘(d)’ becomes irrelevant.” Office Action, page 8. In order to anticipate a claim under 35 U.S.C. § 102(b), the cited reference must teach each and every element of the claim is found, either expressly or inherently. MPEP § 2131. Chen fails to teach, either expressly or inherently, “selecting a case to be packed with one or more of the items in the list of items to be packed, wherein the selecting

the case comprises determining a desired average volume per case and selecting the smallest of the cases available to be packed that comprises a volume in excess of the average volume per case.” Thus claim 1 is allowable over Chen. Claims 2-34 depend from claim 1 and are allowable for at least the reasons discussed in relation to claim 1. Applicants respectfully request that the Examiner withdraw the rejection of claims 1-4 and 16.

VI. 35 U.S.C. § 103

Claims 15 and 27-30 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Chen, *et al.*, in view of common knowledge regarding packing items. Examiner states that “Chen et al does not appear to explicitly teach the handling of pre-packaged cases, the preparing of a deliverables data file, and the printing of the data on a pick label.” Examiner goes on to take Official Notice that these steps are old and well known in the packing and shipment of packages. Applicant respectfully traverses the Examiner’s assertion of Official Notice, and requests that the Examiner provide documentary evidence to support the assertion.

In any event, to establish a *prima facie* case of obviousness, the reference must teach or suggest all of the claim limitations. As discussed above in section V, Chen does not teach or suggest all of the claim limitations of claim 1. Claims 15 and 27-30 depend from claim 1. Thus, claims 15 and 27-30 are allowable for at least the reasons stated above. Applicant respectfully requests that the Examiner withdraw the rejection of claims 15 and 27-30.

VII. Prior Art made of Record and Not Relied Upon

The Office Action cited references in section “10” made of record and not relied upon that were considered pertinent to Applicant’s disclosure. The Examiner briefly characterized each reference. Applicant respectfully disagrees with and traverses some of the various other findings and description of some of the references and whether they are relevant prior art, and respectfully reserves the right to present such arguments and other

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material should the Examiner maintain rejection of Applicants' claims, based upon the references made of record and not relied upon or otherwise.


VIII. Conclusion

Applicant respectfully submits that all pending claims 1-34 are allowable. The Examiner is invited to contact the undersigned at (336) 607-7311 to discuss any matter related to the application.

Respectfully submitted,

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